

### Records of mountain butterflies in Eastern Turkey, July 1997

Between 16 and 23 July 1997 I made the following records of butterflies while trekking in mountains that included the Kaçkar Dağları (40° 50' N: 41° 10' E; Artvin Province) and others around the city of Erzurum (39° 55' N: 41° 17' E), Eastern Turkey (see Dubin & Lucas, 1989. *Trekking in Turkey*. Lonely Planet Publications. Australia). It was a wet July and, according to the entomologist I met in Turkey, a poor year for butterflies. I have identified specimens using a number of reference books but base the nomenclature I use in the following list mainly on the classic work of Hesselbarth, Oorschot & Wagener (1995. *Die Tagfalter der Türkei*. Germany). Identification has been confirmed where possible by genitalia. Taxa are listed in alphabetical order by genus. A brief description of capture locations with some other observations is given below the taxon list. I recommend Eastern Turkey for its spirit-raising beauty, the friendliness of the people and the diverse flora and fauna.

Taxon	Location
(code relates to specimen label data)	
<i>Aglais urticae turcica</i> (Staudinger, 1861)	2: 23a (plate Q)
<i>Agrodiaetus ?demavendi</i> (Pfeiffer, 1938)	2: 21a (plate Q)
<i>Agrodiaetus damon kotshubeji</i> (Sovinsky, 1916)	2: 19b, 2: 23 (plate Q)
<i>Agrodiaetus hopfferi</i> (Herrich-Schäffer, 1851)	2: 16 (plate Q)
<i>Agrodiaetus turcicus</i> (Koçak, 1977)	2: 19b
<i>Aricia ?artaxerxes sheljuzhkoii</i> (Obraztsov, 1935)	2: 18, 2: 19a, 2: 19b
<i>Aricia agestis</i> (Denis & Schiffermüller, 1775)	2: 16
<i>Boloria caucasica</i> (Lederer, 1852)	2: 19b (plate P)
<i>Brenthis daphne</i> (Bergsträsser, 1780)	2: 18
<i>Brenthis hecate</i> (Denis & Schiffermüller, 1775)	2: 18, 2: 19a, 2: 21b
<i>Carcharodus alceae</i> (Esper, 1780)	2: 16
<i>Carcharodus lavatherae tauricus</i> Reverdin, 1915	2: 18, 2: 19a
<i>Celastrina argiolus</i> (Linnaeus, 1758)	2: 18
<i>Chazara bischoffii</i> (Herrich-Schäffer, 1846)	2: 16 (plate P)
<i>Chazara briseis meridionalis</i> (Staudinger, 1886)	2: 21a
<i>Chazara persephone transiens</i> (Zerny, 1923)	2: 21a (plate Q)
<i>Chilades trochylus</i> (Freyer, 1845)	2: 16
<i>Coenonympha leander</i> (Esper, 1784)	2: 19b, 2: 23 (plate Q)
<i>Coenonympha symphyta</i> Lederer, 1870	2: 19b
<i>Colias alfacariensis</i> Ribbe, 1905	2: 18, 2: 20

### Plate P

Left-hand column (top to bottom): *Parnassius mnemosyne caucasica* Verity, 1911, *Erebia melancholica* Herrich-Schäffer, 1846, *Erebia graucasica transcaucasica* Warren, 1950, *Erebia hewitsonii* Lederer, 1864, *Plebeius pylaon sephirus* (Frivaldszky, 1835) (underside, aberration, genitalia prep. AWD380, see fig 1), *Boloria caucasica* (Lederer, 1852).

Right-hand column (top to bottom): *Colias thisoa* Ménétriés, 1832, *Maculineaalcon monticola* (Staudinger, 1901), *Hipparchia parisatis* (Kollar, 1849), *Chazara bischoffii* (Herrich-Schäffer, 1846), *Melitaea aurelia ciscaucasica* Rjabov, 1926, *Euphydryas aurinia bulgarica* Fruhstorfer, 1917.

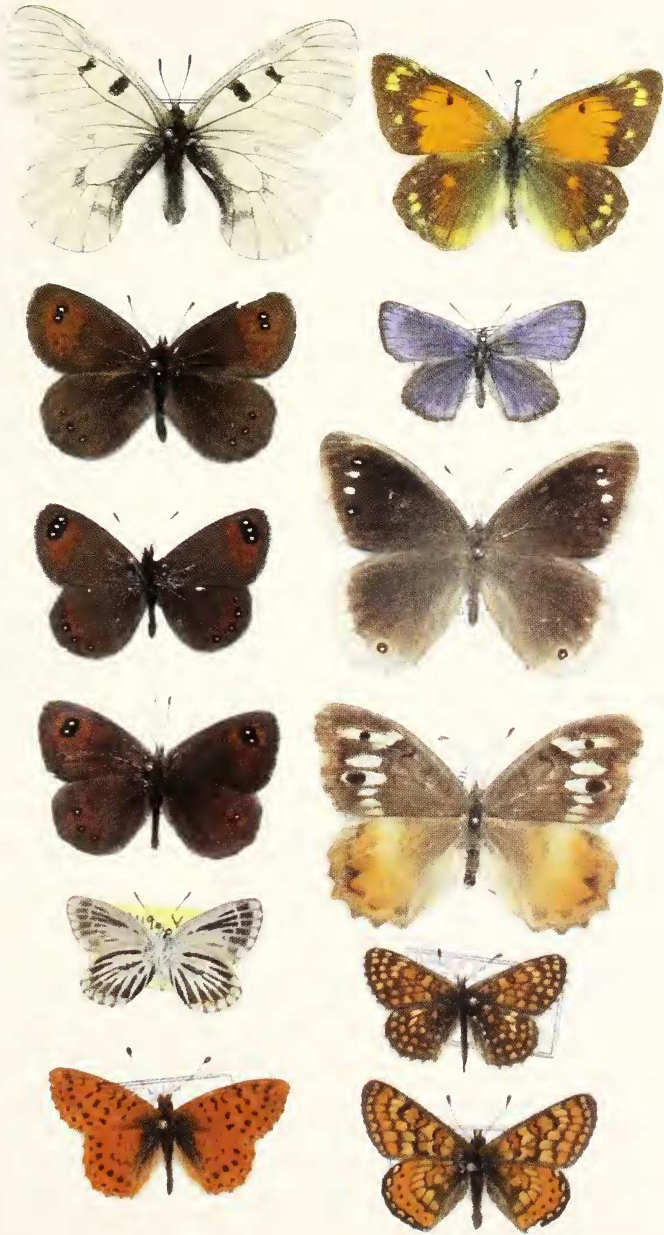


Plate P

<i>Colias thisoa</i> Ménériés, 1832	2: 19b (plate P)
<i>Erebia aethiops melusina</i> Herrich-Schäffer, 1847	2: 18 (plate Q)
<i>Erebia graucasica transcaucasica</i> Warren, 1950	2: 19b (plate P)
<i>Erebia hewitsonii</i> Lederer, 1864	2: 19b (plate P)
<i>Erebia melancholica</i> Herrich-Schäffer, 1846	2: 19b (plate P)
<i>Euphydryas aurinia bulgarica</i> (Fruhstorfer, 1917)	2: 19b (plate P)
<i>Fabriciana adippe</i> (Denis & Schiffermüller, 1775)	2: 19a
<i>Gegenes nostradamus</i> (Fabricius, 1793)	2: 16
<i>Hipparchia parisatis</i> (Kollar, 1849)	2: 16 (plate P)
<i>Hipparchia statilinus</i> (Hufnagel, 1766)	2: 16
<i>Hipparchia syriaca</i> (Staudinger, 1871)	2: 18
<i>Hyponephele lupina intermedia</i> (Staudinger, 1886)	2: 21a
<i>Iphiclides podalirius</i> (Linnaeus, 1758)	2: 18
<i>Lasiommata megera transcaspica</i> (Staudinger, 1901)	2: 16
<i>Leptidea ?duponcheli lorkovici</i> (Pfeiffer, 1932)	2: 21a
<i>Lycaena alciphron melibaeus</i> (Staudinger, 1878)	2: 16, 2: 18 (plate Q)
<i>Lycaena candens</i> (Herrich-Schäffer, 1844)	2: 21b
<i>Lycaena thetis</i> Klug, 1834	2: 23 (plate Q)
<i>Lycaena tityrus</i> (Poda, 1761)	2: 18
<i>Lycaena vigaureae</i> (Linnaeus, 1758)	2: 23
<i>Lysandra bellargus</i> (Rottemburg, 1775)	2: 21a
<i>Maculinea alcon monticola</i> (Staudinger, 1901)	2: 19b, 2: 21b (plate P)
<i>Maniola jurtina phormia</i> (Fruhstorfer, 1909)	2: 17
<i>Melanargia larissa noacki</i> Wagener, 1983	2: 21a, 2: 23
<i>Melanargia russiae</i> (Esper, 1783)	2: 23
<i>Meleageria daphnis versicolor</i> (Heyne, 1895)	2: 17, 2: 18, 2: 20, 2: 21a, 2: 23
<i>Melitaea ? interrupta</i> Kolenati, 1846	2: 18, 2: 19b
<i>Melitaea ahalia</i> (Rottemburg, 1775)	2: 18, 2: 19a, 2: 19b
<i>Melitaea aurelia ciscaucasica</i> Rjabov, 1926	2: 23 (plate P)
<i>Melitaea cinxia</i> (Linnaeus, 1758)	2: 19b
<i>Melitaea didyma</i> (Esper, 1780)	2: 18, 2: 19a, 2: 19b
<i>Mesoacidalia aglaja</i> (Linnaeus, 1758)	2: 19a
<i>Ochlodes venatus faunus</i> (Turati, 1905)	2: 17
<i>Pararge aegeria tircis</i> (Godart, 1821)	2: 18
<i>Parnassius apollo</i> (Linnaeus, 1758)	2: 19a, 2: 21b
<i>Parnassius mnemosyne caucasica</i> Verity, 1911	2: 19b (plate P)
<i>Pieris napi pseudorapae</i> Verity, 1908	2: 19b
<i>Pieris rapae</i> (Linnaeus, 1758)	2: 16, 2: 18, 2: 21a
<i>Plebeius anteros crassipunctus</i> (Christoph, 1893)	2: 17 (plate Q)
<i>Plebeius argus aegidion</i> (Meisner, 1818)	2: 17, 2: 19b, 2: 21b, 2: 23
<i>Plebeius eumendon</i> (Esper, 1780)	2: 19b
<i>Plebeius eurypilus</i> (Freyer, 1851)	2: 23
<i>Plebeius idas baldur</i> (Hemming, 1934)	2: 19b, 2: 23
<i>Plebeius pylaon sephirus</i> (Frivaldszky, 1835)	2: 19a (plate P; fig 1)
<i>Plebeius pyrenaicus dardanus</i> (Freyer, 1844)	2: 19b (plate Q)
<i>Polyommatus aedon myrrhinus</i> (Staudinger, 1901)	2: 17, 2: 18, 2: 19a, 2: 19b, 2: 23 (plate Q)
<i>Polyommatus amandus</i> (Schneider, 1792)	2: 18, 2: 19a
<i>Polyommatus coelestinus</i> (Eversmann, 1843)	2: 19b
<i>Polyommatus corydonius causicus</i> (Lederer, 1870)	2: 17, 2: 18

<i>Polyommatus eros yildizae</i> Koçak, 1977	2: 18, ?2: 21b (plate Q)
<i>Polyommatus icarus</i> (Rottemburg, 1775)	2: 18, 2: 19a, 2: 19b
<i>Polyommatus semiargus bellis</i> (Freyer, 1842)	2: 19b, 2: 23
<i>Polyommatus thersites</i> (Cantener, 1835)	2: 21a
<i>Pontia chloridice</i> (Hübner, 1813)	2: 16
<i>Pontia edusa</i> (Fabricius, 1777)	2: 16
<i>Pseudochazara beroe</i> (Herrich-Schäffer, 1844)	2: 21b, ?2: 23 (plate Q)
<i>Pseudochazara mniszechii caucasica</i> (Lederer, 1864)	2: 20, 2: 21a (plate Q)
<i>Pyrgus serratalae major</i> (Staudinger, 1878)	2: 19b
<i>Satyrrium myrtale armenum</i> (Rebel, 1901)	2: 21b
<i>Satyrus amasinus</i> Staudinger, 1861	2: 20, 2: 21a
<i>Spialia orbifer</i> (Hübner, 1823)	2: 16, 2: 18, 2: 19a, 2: 21b
<i>Spialia phlomidis</i> (Herrich-Schäffer, 1845)	2: 16
<i>Tarucus balkanicus</i> (Freyer, 1844)	2: 16 (plate Q)
<i>Thaleropsis ionia</i> (Eversmann, 1851)	2: 16
<i>Thymelicus lineola</i> (Ochsenheimer, 1808)	2: 19a, 2: 23
<i>Thymelicus sylvestris syriacus</i> (Tutt, 1905)	2: 23
<i>Turanana endymion</i> (Freyer, 1850)	2: 20, 2: 21a



**Figure 1.** Lateral view of genitalia (prep. AWD380) from a male *Plebeius pylaon sephirus* (Frivaldszky, 1835) with aberrant underside wing pattern (see Plate 1, left-hand column). Scale bar represents 1 mm.

### Plate Q

Left-hand column (top to bottom): *Pseudochazara beroe* (Herrich-Schäffer, 1844), *Polyommatus aedon myrrhinus* (Staudinger, 1901) (male and female), *Agrodiaetus damon kotshubeji* (Sovinsky, 1916) (male and female), *Erebia aethiops melusina* Herrich-Schäffer, 1847, *Lycaena alciphron melibaeus* (Staudinger, 1878).

Centre column (top to bottom): *Plebeius pyrenaicus dardanus* (Freyer, 1844), *Agrodiaetus hopfferi* (Herrich-Schäffer, 1851), *Polyommatus eros yildizae* Koçak, 1977, *Aglais urticae turcica* (Staudinger, 1861), *Lycaena thetis* Klug, 1834.

Right-hand column (top to bottom): *Pseudochazara mniszechii caucasica* (Lederer, 1864), *Plebeius anteros crassipunctus* (Christoph, 1893), *Agrodiaetus ?demavendi* (Pfeiffer, 1938), *Tarucus balkanicus* (Freyer, 1844), *Chazara persephone transiens* (Zerny, 1932), *Coenonympha leander* (Esper, 1784).

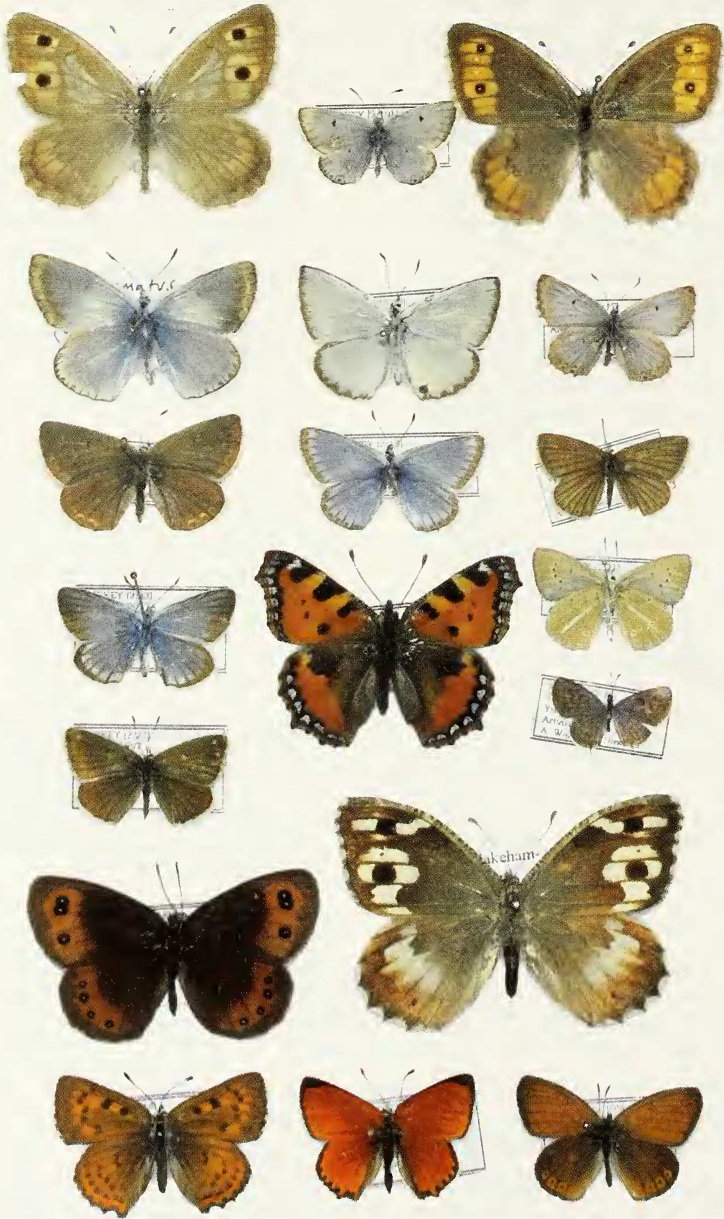


Plate Q

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**Key to locations**

- 2:16.** Yusufeli (40°50'N: 41°33'E): 16-17 July 1997, village at 650m above sea level north of Erzurum in the foothills of the Kaçkar Mountains (Artvin Province). Hot and humid with frequent rain showers. Just below Yusufeli the Barhal River meets the Çoruh River. These are young mountain rivers, fast flowing and in steep 'v'-shaped valleys of red, treeless crags with nearly no soil cover. *Chazara bischoffii*, whose wing colours perfectly match the local rocks, were flying up and down the valley sides. There are small areas of lush cultivation at the rivers' edges growing lucerne and fruit trees.
- 2:18.** Barhal (40°59'N: 41°25'E): 18 July 1997, village at 1250 m (also known as Altiparmak) with a mosque, a store and a few houses next to the Barhal River. Rain showers. There are alder, walnut and mulberry trees, small meadows and fertile areas in the river valley, which is relatively narrow with crags on either side. These are similar to those at Yusufeli, but here the crags hold conifer and some deciduous trees. In the village square sat a man with a dead brown bear that I assumed he had shot. He was smoking with a look of total pride and satisfaction. Later he skinned the bear while an American film crew recorded the scene. He appeared to be a local policeman or ranger, although he wore no uniform. The following morning he blew a whistle when he saw my insect net. He indicated that I was not allowed to collect insects here. I showed him my notebook. Then for reasons I do not know, he patted me on the shoulder in a friendly manner and indicated that I should carry on.
- 2:18b.** Steep sub-alpine meadows among conifer trees at 1700 – 1800 m above Barhal. Weather windy and cloudy, with brief periods of sunshine.
- 2:19.** Yaylalar (40°52'N: 41°15'E): 19 July 1997, summer village at 1945 m (also known as Heveg), well above the tree line. Good summer weather. I travelled here early in the morning from Barhal in an estate car with three men and four six-foot grass scythes. The glistening blades were in the back, their handles running forward between the passengers. A sudden jolt on the uneven road could have proved fatal. The flocks of sheep and goats were going out to pasture and the sunlight was just beginning to catch the tops of the mountains and creep down into the valleys. The haymakers were heading out to the meadows. Women and girls in colourful skirts and headscarves were carrying large baskets and scythes. Ponies and mules were being ridden out to bring in huge baskets of hay. The houses of Yaylalar are badly built and serve only as summer dwellings for the people of Barhal. The sound of the Barhal River is deafening here. Wood smoke from domestic fires was rising straight up into cold, thin air.

- 2:19a.** Meadows near Yaylalar (1900-2200 m): magnificent clear blue sky and vast slopes of flower-rich, sub-alpine pasture leading away to peaks with patches of snow. On each side of the river haymaking was underway. It is no exaggeration to say that there were thousands of butterflies. A passing Landrover crushed many butterflies that were mud-puddling on a track.
- 2:19b.** Sub-alpine pasture (2200-2900 m.): many flowers, but fewer butterflies here.
- 2:19c.** High pasture and scree slopes (2900 + m.): few butterflies seen and no specimens taken. The sun set early in this valley: about 4.30 pm and it was totally dark by 8.30 pm. A group of ten colourfully dressed horsemen cantered past me and then returned later bringing a couple of bulls down from high pasture. After dark, the stars were magnificently bright in a clear sky.
- 2:20** Pirnakapan (39°58'N: 40°34'E): 20 – 21 July 1997, village near and town of Aşkale (39°55'N: 40°40'E), Erzurum Province, 1900 m, very dry,
- 2:21a** red, sandy, barren hills, some streams. Weather very hot and sunny. Further along the road and up hill (2200 m) *Pseudochazara mmiszechii caucasica* were very abundant: both males and females in dry, grassy areas by the roadside.
- 2:21b.** A plateau, 2350 m, near Kopdaği Geçidi, Bayburt Province (40°15'N: 40°15'E): there were a few conifers growing here, but it was mostly open with streams. Sunny weather. A few male *Pseudochazara beroe* flew past very close to the ground. They appeared singly and flew with determination in a straight line.
- 2:23.** Palandöken Ski Centre in mountains near Erzurum. 2300m: flowery hay meadows with many Zygaenidae. I collect some specimens for Gerry Tremewan (Cornwall). 2500m: dry meadows and a dirt road. At 2.30 pm it began to rain heavily. A quail called: 'whit-me-lips' from a hay meadow. A *Colias* sp. was flying at 2900 m over rocky slopes, but too fast to catch for close identification.
- 2:23a.** Rocky slopes at 3200 m: cloudy weather. Bulldozers were building ski-slopes.

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